1.   A loop simulation device for determining an image of a knitting fabric corresponding to knitting fabric design data such that a loop of each stitch is represented, the device comprising:

movement amount calculating means for determining a movement amount of the each stitch of the knitting fabric on the basis of relative positions between the each stitch and upper, lower, left, and right stitches a predetermined rule in accordance with a predetermined rule; and

convergence determining means for repeating processing performed by said movement amount calculating means until a position of the each stitch is converged on a converged value, the converged value being set as a stitch position.

2.   The loop simulation device of claim 1, characterized in that said movement amount calculating means determines temporary movement amounts of each stitch in relation to each of said upper, lower, left, and right side stitches such that a distance between a subject stitch and said upper, lower, left, and right side stitches satisfies a predetermined rule, and determines said movement amount by tabulating said temporary movement amounts determined in relation to each of said upper, lower, left, and right side stitches.

3.   The loop simulation device of claim 1, characterized in that the position of the each stitch including a position in a parallel plane to the knitting fabric and a position in a perpendicular direction to the knitting fabric is determined, and

said movement amount calculating means determines, for the each stitch, a movement amount in said perpendicular direction such that:

the each stitch is not moved in said perpendicular direction when the each stitch is the same stitch type, a knit stitch or a purl stitch, as the stitch types of the upper, lower, left, and right stitches;   and

the each stitch is moved in said perpendicular direction when the each stitch is a different stitch type, a knit stitch or a purl stitch, from at least one of the stitch types of the upper, lower, left, and right stitches.

4.   The loop simulation device of claim 1, characterized in that the position of the each stitch including a position in a parallel plane to the knitting fabric and a position in a perpendicular direction to the knitting fabric is determined, and a vertical size of the each stitch is determined, and that

said movement amount calculating means determines, for the each stitch, a movement amount of the each stitch in said parallel plane such that:

when the each stitch is the same stitch type, a knit stitch or a purl stitch, as the stitch types of the upper and lower stitches, the vertical size of the each stitch corresponds to a distance between the upper and lower stitches in said parallel plane; and

when the each stitch is a different stitch type, a knit stitch or a purl stitch, from at least one of the stitch types of the upper and lower stitches, the each stitch is moved in said perpendicular direction, whereby a knit stitch burrows beneath a purl stitch, and the distance between the upper and lower stitches in said parallel plane decreases below said vertical size in accordance with an amount of the each stitch movement in said perpendicular direction.

5.   The loop simulation device of claim 1, characterized in that the position of the each stitch including a position in a parallel plane to the knitting fabric and a position in a perpendicular direction to the knitting fabric is determined, and a horizontal size of the each

stitch is determined, and

said movement amount calculating means determines, for the each stitch, a movement amount of the each stitch in the parallel plane to the knitting fabric such that:

when the each stitch is the same stitch type, a knit stitch or a purl stitch, as the stitch types of the left and right stitches, the horizontal size of the each stitch corresponds to a distance between the left and right stitches in said parallel plane, and

when the each stitch is a different stitch type, a knit stitch or a purl stitch, from at least one of the stitch types of the left and right stitches, the each stitch is moved in the perpendicular direction, whereby a purl stitch burrows beneath a knit stitch, and the distance between said left and right stitches in said parallel plane decreases below the horizontal size of the each stitch in accordance with an amount of the each stitch movement in the perpendicular direction.

6. The loop simulation device of claim 1, characterized in that said stitch position is expressed as a reference position, and a stitch position in at least a parallel plane to said knitting fabric is determined,

an orientation of a vector extending from said reference position of said stitch to a reference position of said upper side stitch is set as a stitch orientation, and

said movement amount calculating means determines, for each stitch, a movement amount of a subject stitch within said parallel plane such that when said subject stitch has a different stitch orientation to said left and right side stitches, said stitch orientation of said subject stitch approximates said stitch orientation of said left and right side stitches, and a direction linking said reference position of said subject stitch to said reference positions of said left and right side stitches approximates a right-angled direction to said approximated orientation.

7.   The loop simulation device of claim 1, further comprising means for determining an initial value of the position of the each stitch such that a distribution of the position of the each stitch does not deviate from a grid form,

wherein the processing of said movement amount calculating means begins from said initial value.

8.   A loop simulation method determining and displaying an image of a knitting fabric corresponding to knitting fabric design data such that a loop of each stitch is represented, the method comprising the steps of:

moving each stitch of the knitting fabric on the basis of relative positions between the each stitch and upper, lower, left, and right stitches in accordance with a predetermined rule;

repeating the movement of the each stitch until a position of the each stitch is converged on a converged value;

and displaying the each stitch arranged in the converged value being set as a stitch position.

9.   The loop simulation method of claim 8, further comprising the steps of:

determining the position of the each stitch including a position in a parallel plane to the knitting fabric and a position in a perpendicular direction to the knitting fabric;

not moving the each stitch in the perpendicular direction to the knitting fabric when the each stitch is the same stitch type, a knit stitch or a purl stitch, as the stitch types of the upper, lower, left, and right stitches;   and

moving the each stitch in said perpendicular direction when the each stitch is a

different stitch type, a knit stitch or a purl stitch, from at least one of the stitch types of the upper, lower, left, and right stitches.

10.   A loop simulation program for determining and displaying an image of a knitting fabric corresponding to knitting fabric design data such that a loop of each stitch is represented, the program comprising:

a command for moving the each stitch of the knitting fabric on the basis of relative positions between the each stitch and upper, lower, left, and right stitches in accordance with a predetermined rule;

a command for repeating the movement of the each stitch until a position of the each stitch is converged on a converged value;   and

a command for displaying the each stitch arranged in the converged value being set as a stitch position.

11.   The loop simulation program of claim 10, characterized in that the position of the each stitch including a position in a parallel plane to the knitting fabric and a position in a perpendicular direction to the knitting fabric is determined, and

in said command for moving the each stitch, the each stitch is not moved in said perpendicular direction when the each stitch is the same stitch type, a knit stitch or a purl stitch, as the stitch types of the upper, lower, left, and right stitches, and the each stitch is moved in said perpendicular direction when the each stitch is a different stitch type, a knit stitch or a purl stitch, from at least one of the stitch types of the upper, lower, left, and right stitches.